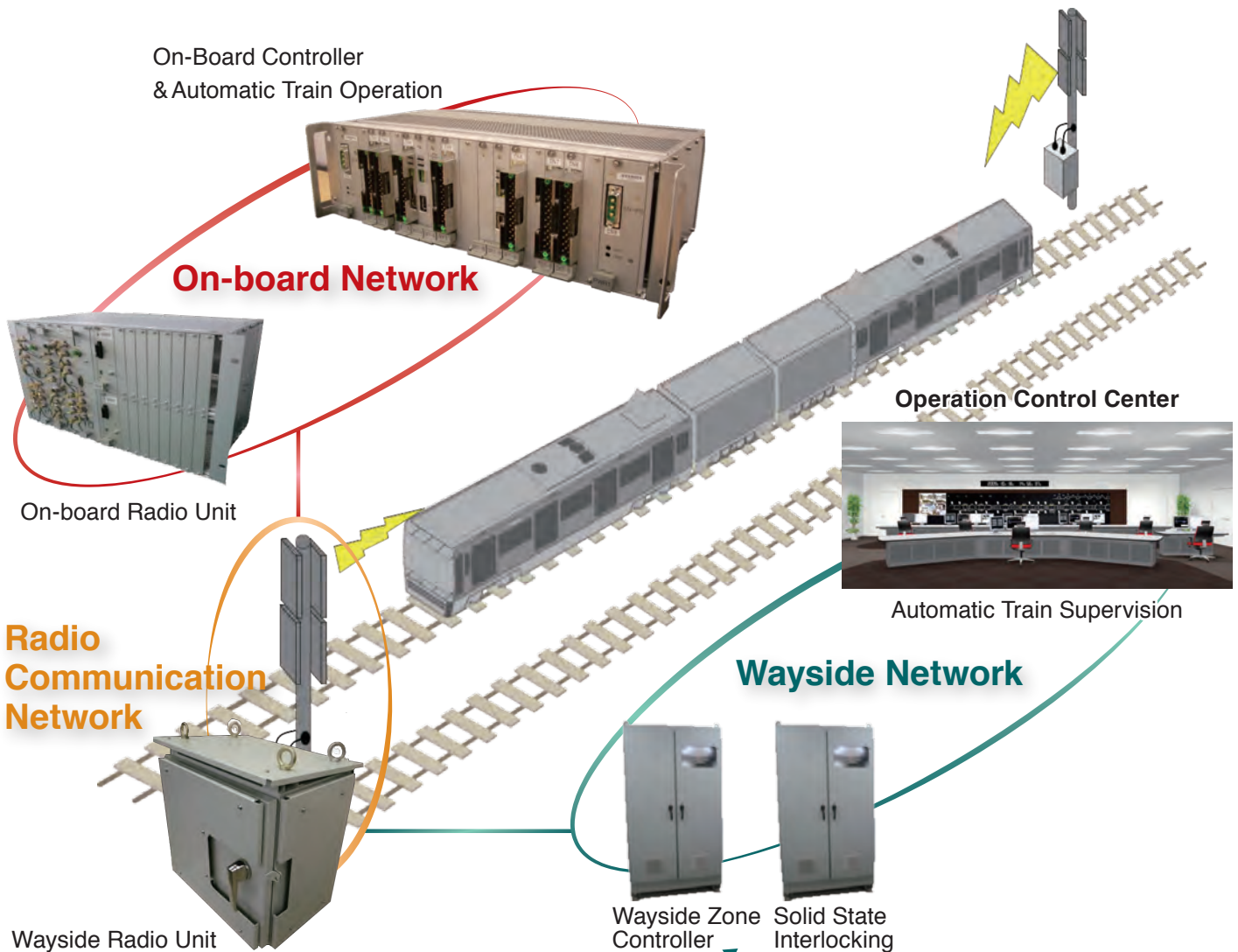




CBTC

(Communication Based Train Control)

The CBTC system for Mitsubishi Electric is the foundation of safe and stable transportation, and it also achieves advanced train operation and control.



Achievement of Efficient Train Traffic

High-density train operation via moving block section control

Reduction of Wayside Equipment

Cost reduction by reducing wayside signals and other equipment

Adoption of ISM Band Radio Communication

Easy to install by adopting 2.4-GHz-band radio, which does not require a radio license



Vital unit for wayside

CBTC (Communication Based Train Control)

Features

① Energy Saving

Our economy-driving ATO effectively reduces energy consumption* without changing running time between stations.

* 18% reduction on a revenue line

② Highly-Reliable Wireless Transmission

Our CBTC radio system with advanced wireless transmission technologies guarantees highly available train-wayside communication for urban areas**.

** Compatible with high-speed trains at up to 160km/h

③ System Safety

The On-Board Controller and Wayside Zone Controller were certified as SIL4*** by TÜV-SÜD (Germany) in 2014.

*** SIL: Safety Integrity Level compliant with EN50126, EN50128, EN50129 and EN50159

Power Equipment Specifications

Product	On-Board Controller	Wayside Zone Controller / Solid State Interlocking
Power source	110V DC	24V DC+10%,-10%
External I/F	RS-485 with 2Ch	Ethernet with 2Ch
Installation position	On-board	Relay room
Dimension	W442mm X D220mm X H132.5mm	W432mm X D267mm X H265.4mm

Environment

Product	On-Board Controller	Wayside Zone Controller / Solid State Interlocking
Temperature range	-25 to +55 °C	0 to +45 °C
Dielectric strength	1200V AC (per minute)	-
Electromagnetic compatibility	EN50121-4	EN50121-3-2
Shock resistance	IEC / EN 61373	-